Application No. 09/851,210

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

1.   (Original) A method for utilizing redundant color inks, comprising:
tessellating the available color space as defined by the redundant color inks into regions where the regions are arranged so as to minimize the range of luminance variation found within the regions.

2.   (Currently Amended) The method of claim 1 further comprising the step of:
overlaying the tessellated color space result from the prior tessellating step with interpolation points so as to create an overlay lookup table.

3.   (Currently Amended) The method of claim 2 further comprising the step of:
applying image data to the overlay lookup table to point to which redundant color inks to select and provide the amounts to use of the selected redundant color inks.

4.   (Original) The method of claim 1 wherein the regions are arranged so that region boundaries are predominately orthogonal to the axis of luminance.

5.   (Original) The method of claim 3 wherein the amounts are interpolated from the interpolation points stored in the overlay lookup table.

6.   (Original) The method of claim 5 wherein the interpolation is performed by calculating the volume of tetrahedra formed by the interpolation points.

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7.   (Original)   The method of claim 1 wherein the regions are non-overlapping.

8.   (Original) A method for utilizing redundant color inks having a given color space, comprising:

tessellating the color space so as to minimize luminance variation in the redundant color inks utilized.

9.   (Original)   The method of claim 8 wherein the tessellation is achieved by:

sorting the redundant color inks by order of luminance from the darkest to the lightest,

adding the redundant color inks as points to the color space and connecting the points in the sorted order so as to create tetrahedral tessellated regions.

10.   (Original)   The method of claim 9 wherein the regions are non-overlapping.

11.   (Currently Amended) The method of claim 10 further comprising the step of:

overlaying the tessellated color space with interpolation points so as to create an overlay lookup table.

12.   (Currently Amended) The method of claim 11 further comprising the step of:

applying image data to the overlay lookup table to point to which redundant color inks to select and provide the amounts to use of the selected redundant color inks.

13.   (Original) A method for utilizing redundant color inks having a given color space to image data in a printer, comprising:

tessellating the color space so as to minimize luminance variation in the redundant color inks utilized by:

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   sorting the redundant color inks by order of luminance from the darkest to the lightest and

   connecting the redundant color inks in the sorted order across the color space so as to create tetrahedral non-overlapping tessellated regions.

14. (Currently Amended) The method of claim 13 further comprising the step of:

   overlaying the tessellated color space with interpolation points so as to create an overlay lookup table.

15. (Currently Amended) The method of claim 14 further comprising the step of:

   applying image data to the overlay lookup table to point to which redundant color inks to select and provide the amounts to use of the selected redundant color inks.

16. (Original) The method of claim 13 wherein if creating a tetrahedral non-overlapping tessellated region results in a concave shape then additional tetrahedral non-overlapping tessellated regions are added to fill the cavity and maintain a convex construction.